BRUHAT BANGALORE MAHANAGARA PALIKE

Name of the Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the Work : Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Estimate Cost :

QUALITY CONTROL REPORTS TO

ASST. EXECUTIVE ENGINEER
Vidyaranyapura Sub Division,
BBMP, Bangalore.

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QUALITY CONTROL REPORTS FOR

WET MIX MACADAM (WMM)

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Job No.: CTCE/BBMP/W.No.10/KRIDL/WMM/Gradation/2014-15

03.11.2014

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014

Date of Testing : 03.11.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8750**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	315	315	3.6	96.4	95-100
22.4	2985	3300	37.7	62.3	60-80
11.2	1740	5040	57.6	42.4	40-60
4.75	1265	6305	72.1	27.9	25-40
2.36	650	6955	79.5	20.5	15-30
0.600	715	7670	87.7	12.3	8-22
0.075	520	8190	93.6	6.4	0-8

Note:

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03.11.2014

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014

Date of Testing : 03.11.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8550**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	305	305	3.6	96.4	95-100
22.4	2650	2955	34.6	65.4	60-80
11.2	1245	4200	49.1	50.9	40-60
4.75	1360	5560	65.0	35.0	25-40
2.36	945	6505	76.1	23.9	15-30
0.600	850	7355	86.0	14.0	8-22
0.075	725	8080	94.5	5.5	0-8

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GRADATION FOR WMM
MORTH TABLE-400-11

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Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014

Date of Testing : 03.11.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8765**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	290	290	3.3	96.7	95-100
22.4	2980	3270	37.3	62.7	60-80
11.2	1745	5015	57.2	42.8	40-60
4.75	1260	6275	71.6	28.4	25-40
2.36	685	6960	79.4	20.6	15-30
0.600	730	7690	87.7	12.3	8-22
0.075	815	8505	97.0	3.0	0-8

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GRADATION FOR WMM
MORTH TABLE-400-11

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Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014

Date of Testing : 03.11.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **7475**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	225	225	3.0	97.0	95-100
22.4	2240	2465	33.0	67.0	60-80
11.2	1185	3650	48.8	51.2	40-60
4.75	1015	4665	62.4	37.6	25-40
2.36	975	5640	75.5	24.5	15-30
0.600	745	6385	85.4	14.6	8-22
0.075	820	7205	96.4	3.6	0-8

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03.11.2014

GRADATION FOR WMM
MORTH TABLE-400-11

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Reference : EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014

Date of Testing : 03.11.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): 8085

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	155	155	1.9	98.1	95-100
22.4	2515	2670	33.0	67.0	60-80
11.2	1395	4065	50.3	49.7	40-60
4.75	1305	5370	66.4	33.6	25-40
2.36	955	6325	78.2	21.8	15-30
0.600	685	7010	86.7	13.3	8-22
0.075	685	7695	95.2	4.8	0-8

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03.11.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Technical Manager,** KRIDL, Bangalore.
Name of the Work	Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	03.11.2014

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	387	386	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	89	85	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	298	301	
4	Aggregate Impact value = percent fines	23.00	22.02	
	100* (W_2/W_1)%			22.51

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Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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Job No.: CTCE/BBMP/W.No.10/KRIDL/WMM/AIV/2014-15

03.11.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Technical Manager,** KRIDL, Bangalore.
Name of the Work	Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	03.11.2014

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	382	384	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	87	88	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	295	296	
4	Aggregate Impact value = percent fines	22.77	22.92	
	100* (W_2/W_1)%			22.85

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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03.11.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Technical Manager,** KRIDL, Bangalore.
Name of the Work	Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	03.11.2014

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	379	383	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	84	85	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	295	298	
4	Aggregate Impact value = percent fines	22.16	22.19	
	100* (W_2/W_1)%			22.18

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Technical Manager,** KRIDL, Bangalore.
Name of Work	Asphalting to roads in Ramanna Garden Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/KRIDL/W.O/675/2013-14 Dated: 05.03.2014
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	03.11.2014

Result : Flakiness Index = **12.63%**

Elongation Index = **13.58%**

Result : Combined Flakiness & Elongation index **26.21%**

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

Note:

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Job No.: CTCE/BBMP/W.No.10/KRIDL/WMM/S-T/2014-15 03.11.2014

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Technical Manager,** KRIDL, Bangalore.
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Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	03.11.2014

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Result : Flakiness Index = **11.47%**

Elongation Index = **13.96%**

Result : Combined Flakiness & Elongation index 25.43%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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